

On page 1, please replace the second full paragraph with the following:

Ghrelin was identified as the natural ligand of the growth hormone secretagogue receptor 1a (GHSR1a). The receptor is most abundant in the pituitary gland and in hypothalamic parts of the brain, but can also be detected in other tissues at low concentrations. Since the late 70ies synthetic peptides and other compounds, named secretagogues had been shown to stimulate the release of growth hormone. However, the natural ligand responsible for the release of growth hormone remained unknown until the discovery of ghrelin in 1999. Ghrelin is a highly basic 28 amino acid peptide hormone with an octanoyl acid side chain at the third amino acid of its N-terminus (serine 3). This unusual modification is required for the interaction at the GHS-receptor and its activity. The amino-acid sequence of the purified rat ghrelin was determined by a protein sequencer to be GSSFLSP~~EH~~QKAQQRKESKKPPAKLQPR (SEQ ID NO:1).

On page 19, please replace the portion of the legend for Figure 31 with the following:

Fig. 31 shows the nucleotide sequences of clones resulting from the automated reselection,

5'-X-, 5' primer sequence GGAGCUCAGACUUAGCA (SEQ ID NO:126),

3'-Y-, 3' primer sequence AUCGAGUGUCGGUCCAC (SEQ ID NO:127),

whereby the Ts are to be understood as Us, sequences that are underlined are thought to form an intramolecular helical structure, the core forms of the clones begin and end with the underlined sequences,

On page 30, please replace the second, third and fourth full paragraphs with the following:

## **Materials.**

Biotinylated rat D-ghrelin (amino acid sequence, H-Gly-Ser-Ser(octanoyl)-Phe-Leu-Ser-Pro-Glu-His-Gln-Lys-Ala-Gln-Gln-Arg-Lys-Glu-Ser-Lys-Lys-Pro-Pro-Ala-Lys-Leu-Gln-Pro-Arg-OH) ([SEQ ID NO:1](#)) was custom synthesized by Bachem (Basel, Switzerland). The peptide that was used during the selection contains a biotin moiety at the C terminus to enable partitioning from unbound nucleic acid species employing the biotin-NeutrAvidin interaction. For this, NeutrAvidin agarose and NeutrAvidin UltraLink Plus (both Perbio Science, Bonn, Germany) were used. The OneStep RTPCR Kit was purchased from Qiagen (Hilden, Germany). Taq DNA Polymerase, Superscript II Reverse Transcriptase and RNaseOUT RNase inhibitor were from Life Technologies (Karlsruhe, Germany), T7 RNA polymerase from Stratagene (Amsterdam, The Netherlands), and DNase I from Sigma-Aldrich (Taufkirchen, Germany). PicoGreen double stranded DNA detection dye was purchased from Molecular Probes, NTPs from Larova (Teltow, Germany).

## **Pools, primers and RNA spiegelmers**

The sequence of the DNA pool was 5'-TCT AAT ACG ACT CAC TAT AGG AGC TCA GAC TTC ACT CGT G-N<sub>40</sub>-CAC GTA CCA CTG TCG GTT CCA C-3' with N symbolizing an equimolar mixture of A, C, G, and T ([SEQ ID NO:6](#)).

Forward (T7)-primer DE.40T7:

5'-TCT AAT ACG ACT CAC TAT AGG AGC TCA GAC TTC ACT GC-3' ([SEQ ID NO:4](#)).

Reverse primer DE.40R:

5'-GTG GAA CCG ACA GTG GTA CG-3' ([SEQ ID NO:5](#)).

On page 40, please replace the last full paragraph, first showing the amendments followed by a clean copy of the amended paragraph:

In order to obtain RNA binders with improved binding affinities, a reselection on the basis of the ghrelin-binding aptamer C12 was performed. The sequence of the respective DNA pool was 5'-TCT AAT ACG ACT CAC TAT AGG AGC TCA GAC TTA GCA GGT GGG TGA GG caa aaa cgt aag acc gaa ggt aac cat t CCT ACC CAC CAT CGA GTG TCG GTT CCA C-3' (SEQ ID NO:128) with lower case letters symbolizing a mixture of the respective base at 34%, the three other bases at 22%. The forward primer DE2.T7 had the sequence 5'-TCT AAT ACG ACT CAC TAT AGG AGC TCA GAC TTA GCA GG-3' (SEQ ID NO:129), the reverse primer DE2.R had the sequence 5'-GTG GAA CCG ACA CTC GAT GG-3' (SEQ ID NO:130).